Tumoral calcinosis of the lumbar spine

Case illustration

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This 49-year-old man noted an enlarging mass in his lower back. Recently the mass had become tender; it measured 8 cm in diameter and was slightly compressible. On presentation, the patient was neurologically intact. A lateral radiograph (Fig. 1 left) and computerized tomography (CT) scan (Fig. 1 right) obtained in the lumbar spine revealed a lobular, calcified, and cystic mass arising from the L-3 spinous process. A CT-guided aspirate showed only calcific material; the presumptive diagnosis was tumoral calcinosis. Serum calcium and phosphorus levels were normal. The lesion was surgically resected (Fig. 2). The mass extended down to the ligamentum flavum, which itself appeared normal. On gross inspection, the tumor was whitish and brittle, with solid and cystic components. Microscopic examination showed calcified cellular debris (Fig. 3). The patient’s postoperative course was unremarkable.

Tumoral calcinosis is characterized by painless calcium phosphate deposits that occur mainly in the juxtaarticular regions of the extremities.1,5 One third of cases are familial with a 50% penetrance, suggesting an autosomal-recessive trait.2 An inborn error of phosphorus metabolism, recurrent soft-tissue microtrauma, renal failure, and secondary hyperparathyroidism all may play a role in the pathogenesis of tumoral calcinosis. Spinal involvement is rare,3 and to the best of our knowledge, tumoral calcinosis of the lumbar spine has been reported only once before.4

Surgical excision of spinal tumoral calcinosis is the treatment of choice, because it provides a cure without known recurrence.3,4 Any associated metabolic abnormalities should be treated as necessary.

References


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